CASTALIA.

C. odorata (Ait.) Woodville & Wood. Ponds and still waters, common.

NELUMBO.

N. lutea (Willd.) Pers. W. Peabody (*George Larrivee*, Aug. 14, 1913; *J. Dawson*, Aug. 22, ——); introduced, cove in Assabet River, Concord (*Martha Bartlett*, September, 1886; *W. Deane*, July 23, 1893); a large colony of it well established in a small pond near the railway in Lynnfield Center (*J. Richard Lunt*, Aug. 24, 1915).

NYMPHAEA.

N. advena Ait. Still water, common.

N. variegata (Engelm.) G. S. Miller. (See Rhodora xvi. 137–141, 1914.) Occasional, north and west of Boston.

N. microphylla Pers. Still water of Sudbury and Concord Rivers at Sudbury, Concord and Billerica; also at Round Pond, Woburn.

× ? **N. rubrodisca** (Morong) Greene. Martin's Pond, N. Reading (*A. S. Pease*, June 25, 1904; July 11, 1908); deep water of Concord River, Concord (*J. R. Churchill*, May 30, 1894).

C. H. Knowlton, Walter Deane } *Committee on Local Flora.*

NOTES FROM THE WOODS HOLE LABORATORY — 1915.

Edited by F. S. Collins.

I. Prasiola stipitata Suhr.

This species was found throughout the summer. It occurred at the Spindle Ledge on the surface of large boulders just above the high tide line where it was washed by spray. While not widely distributed, it grew luxuriantly where it was found. There is no indication from

its vegetative and reproductive vigor that it is not perfectly at home in this region. It has been previously reported[1] from Ireland, Norway, Sweden, Denmark, France, and Silesia.

During June and the first half of July it was found on only one stone. Later in the season, however, it had spread to other suitable spots in the neighborhood of the Spindle, and seemed to be in a fair way to become generally distributed. It forms a short dense turf, which seems at first sight to be composed of small Monostroma plants. The turf forms green patches a foot and more in diameter on the surface of the boulders.

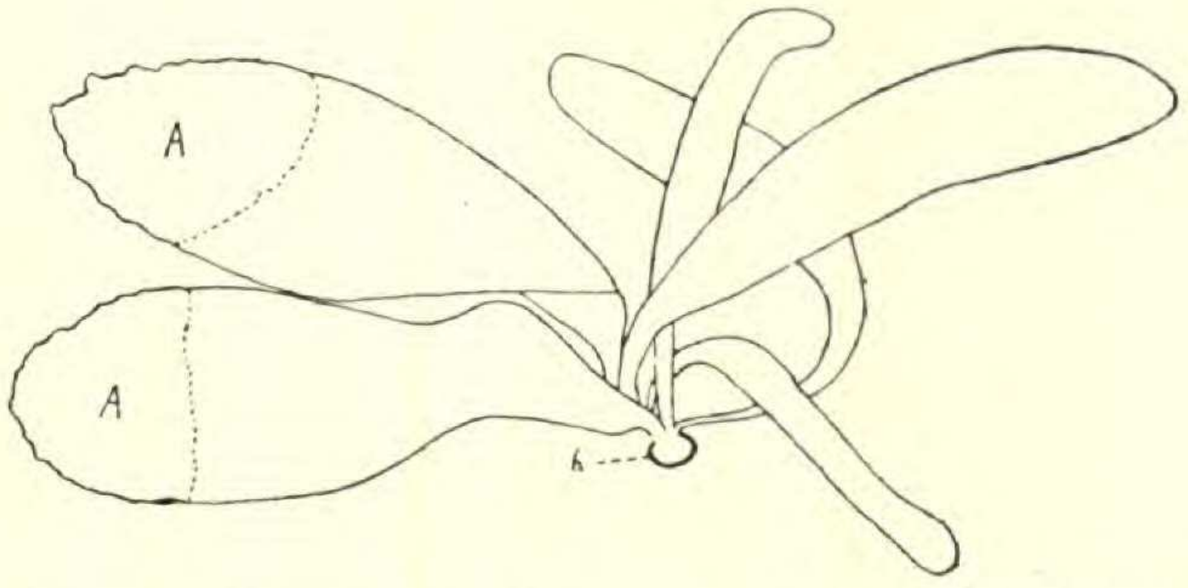

FIG. 1.— Prasiola stipitata, mature plant. A, regions of akinete formation and liberation. h, holdfast. × 20.

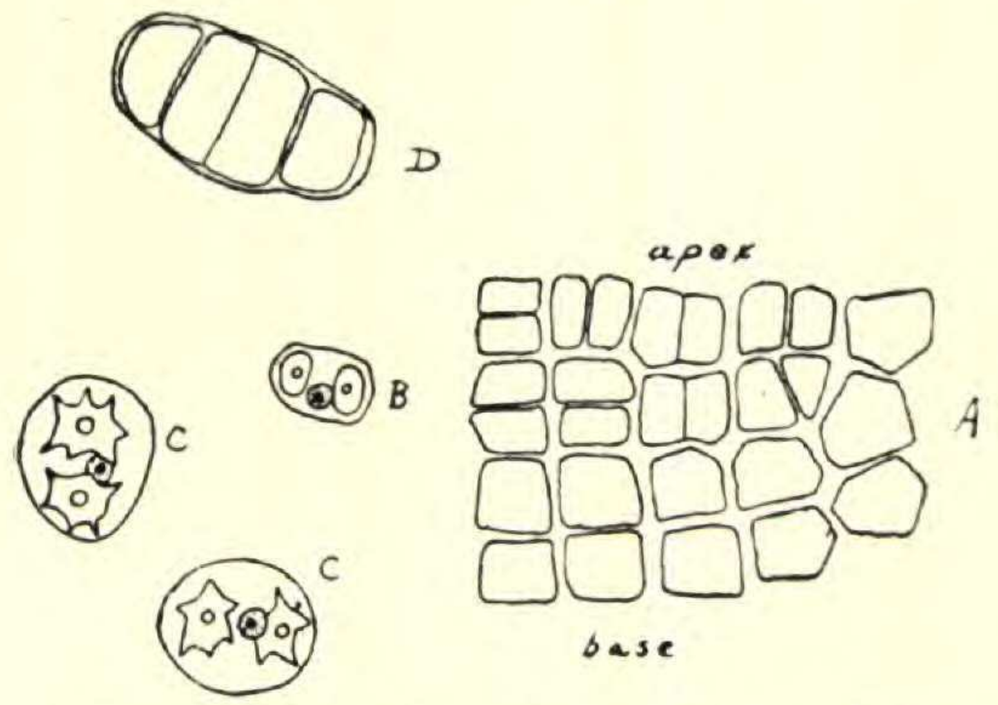

FIG. 2.— Prasiola stipitata. A, small portion of thallus, showing cells in rows. B, C, D, stages of akinetes. × 410.

The habit of the plant is characteristic, very much like Monostroma except that it is from the beginning filamentous and is never saccate. Several fronds arise from a single base (fig. 1).

Reproduction was found to be entirely by means of akinetes, as is characteristic of the family of Prasiolaceae. This method of reproduction was general and effective. From the standpoints of multiplication and dissemination of the species, the akinetes seem to be as efficient as the zoospores of the nearly related Ulvaceae. The akinetes are formed in large areas covering the ends of the fronds (fig. 1, A), and in these areas every cell is involved. The cells here cease to divide, and become less clearly green. At the same time the walls become swollen and softened. In this condition the walls dissolve along their outer faces, though the side walls persist for some time. Dissolution of the walls allows the

[1] De Toni, Sylloge Algarum, Pavia, 1889, Vol. 1, p. 145.

escape of the protoplasts as naked akinetes. These at first retain the shape they had when enclosed in the walls, but in a few hours round off and begin to increase in size. On germination, which takes place without any resting period, they produce short monosiphonous filaments (fig. 2, b, c, d). These become flat thalli, one cell in thickness, by cell-division in two planes.

Specimens of this alga, which was kindly identified by Mr. F. S. Collins, were prepared for distribution in the Phycotheca Boreali-Americana of Collins, Holden and Setchell.— I. F. Lewis.

II. Chamaesiphon incrustans Grun.

Chamaesiphon incrustans was found growing in great abundance on the leaves of Fontinalis sp. collected from a pond on Cuttyhunk Island. The leaves were found to be encrusted with *Coleochaete scutata* and occasional small plants of Bulbochaete. The Chamaesiphon appeared either in patches or scattered all over the surface of the Fontinalis leaves, in some cases running over the Coleochaete. This species probably has a very wide distribution, but has not hitherto been recorded from Massachusetts. Specimens were preserved for distribution in the Phycotheca.— I. F. Lewis and R. H. Colley.

III. Compsopogon coeruleus (Balbis) Mont.

Large floating masses of a species of Compsopogon were found in the summer of 1914 in the water garden on Mr. Charles R. Crane's estate by Dr. G. R. Lyman. In structure, size, and method of macro-aplanospore formation the species agrees with the description of *Compsopogon coeruleus* (Balbis) Mont. The normal habitat of this species is given [1] as Florida, the Antilles, and Algeria. Its presence as far north as Woods Hole is probably due to its introduction with water-plants sent from Florida. While vigorous and abundant in 1914, the species has not been found this season. It may have been winter-killed, or perhaps crowded out by a large species of Cladophora which has spread over the bottom of the pond.— R. H. Colley.

[1] Thaxter, R. Note on the structure and reproduction of Compsopogon. Bot. Gazette, Vol. 29, p. 259, 1900.

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